

**Composite Vascular Pedicled Middle
Turbinate Flap for Reconstruction of
Sellar Defects**

Sameh M Amin, MD

Tamer O Fawzy, MD ,

and Ahmed A Hegazy, MD

Abstract

Objectives: Herein, we describe our experience in simple harvest of the vascular pedicled middle turbinate flap (MTF) sufficient for sellar defect reconstruction)

Methods: An anatomical feasibility study is done in 10 sides of 5 preserved injected cadaveric heads. The middle turbinate is separated from the skull base and the basal lamella with or without retrograde dissection of its tail as a composite flap based on the middle turbinate and posterolateral nasal arteries. The technique was applied in 25 cases of .cerebrospinal fluid (CSF) leak after endoscopic transsphenoidal surgery

Results: The mean area of MTF with and without medial mucosal dissection was 9.53 cm² and 7.6 cm² respectively. The mean length between anterior end of MT and basal lamella and the latter and the sella was 3.67 cm and 2.33 cm respectively. The mean area of sella was 2.2 cm²

The MTF covered the sella, planum, and tuberculum sella corridors in . head sides. Partial dissection of MT medial mucosa was needed in 3 head sides to cover sella, planum, and tuberculum sella. Follow-up for 26 to 37 month revealed control of CSF leak in 24 cases. **Conclusion:** Composite MTF is a simple rapid reproducible option for sellar defects reconstruction. **Keywords**

endoscopic sinus surgery, endoscopic skull base surgery, minimally invasive CSF leak closure, minimally invasive skull base surgery, nasal and sinus surgery, surgery, surgical outcomes